Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at http://about.jstor.org/participate-jstor/individuals/early-journal-content.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

tained the remains of araucarian forests, besides a fair abundance of Jurassic, Cretaceous, and Tertiary (?) molluscan forms—all helping to establish a biologic connection, whether on the land or in the sea, between the faunas of the far south and those of the region lying north of Lat. 55° S.

Space does not permit of more than a reference to the special scientific work of the expedition, which will doubtless be detailed in future monographs by those most competent to treat of the different subjects. Of particular interest among the geological studies are those pertaining to the life histories of the different species of seal and of the emperor penguin. One cannot properly pass over this section of the work without referring to the extraordinary habit which is recorded of one or more species of seal of dragging their bodies, at about the time of impending death, to distances on the inland ice of fifty miles or more and to elevations of 5,000 feet. The geologist and physical geographer can well appreciate at this time what destructive evidence bearing upon land elevations or oceanic transgressions might be obtained from the remains of these sea-animals that are now found so far removed from their natural habitats. In its present climatic aspects Victoria Land may not improperly be compared with the far north of Greenland or with the opposite Ellesmere, Grinnell, and Grant Lands. A mild and genial summer temperature—less mild, however, than in the Arctic tracts—alternates with a winter of extreme severity, and contrasts with the monotonous cold that in more or less continuousness was noted by Nordenskjöld in the region of Graham Land. The lowest official recorded temperature made during the traverse of the lofty plateau was — 72°.

The illustrations which accompany Captain Scott's work do full justice to the text, and in themselves would give exceptional value to the report. Few works of travel and discovery have had such support given to them from the camera and photographic process.

GEOGRAPHICAL RECORD.

AFRICA.

THE NILE-RED SEA RAILROAD.—The new railroad across the Nubian Desert, between the Nile and the Red Sea, was opened for business February 17. The line is 331 miles long, and it has cost about $8,000,000. Construction began at the Red Sea in August, 1903, and the first train passed over the road in October, 1905, the entire work, therefore, occupying only a little over two years. The Red Sea terminus is Port Sudan, 30 miles north of Suakin, to which as a harbour it is much superior.

During the past year many houses have been erected for the whites, the railroad station and lighthouse have been built, and 4,000 labourers have been making port improvements ; and the working force will be increased to 6,000 this summer.

The Nile terminus of the road is at the mouth of the Atbara River, a short distance south of Berber, where trains will be switched to the Wadi Halfa-Khartum railroad for their destination—Khartum or Berber. As the country traversed is almost completely desert, it can supply little or no commerce, and the purpose of the road is to cheapen freights between the Anglo-Egyptian Sudan and the outside world by supplying a short route to the sea.

SURVEY OF THE MOROCCAN COAST.—Some time ago the French Committee of Morocco appealed to the public to contribute to the work of pacific penetration in Morocco which Mr. Delcassé had undertaken. Mme. Hériot thereupon offered a substantial sum of money for the much-needed survey of the Atlantic coast of Morocco. The only naval chart of that shore now in use dates from 1835, and is full of errors. Lieut. Dyé and Mr. Renaud were selected to study the outlines of the coast from Tangier to Agadir. The work was carried out last year, and Lieut. Dyé's report is printed in the *Bulletin* of the Comité de l'Afrique Française. This coast in winter has long been the terror of navigators, and the conclusions which the surveyors have reached do not lessen its bad reputation. The report explodes the idea that there is a good natural port at Agadir in the Sus region. There is, in fact, no natural port in Morocco on the Atlantic coast. Many valuable suggestions as to navigation in those waters—the construction of lighthouses, etc.—are given.

METEOROLOGY AT THE BRITISH ASSOCIATION IN SOUTH AFRICA, 1905.—In the October and November numbers of *Symons's Meteorological Magazine*, Dr. H. R. Mill gives an account of the meteorological and climatological matters of interest in connection with the South African meeting of the British Association. On the voyage to the Cape a lecture was given by Professor W. M. Davis "in 1° N., on August 7th," on the Weather of the Atlantic, and another, by Dr. Mill, "in 15° S., on August 10th," on the Bed of the Sea and the Circulation of its Waters. At a meeting of the General Committee at Cape Town on August 15 an important resolution was adopted regarding the co-ordination of the meteorological services of the British Empire. The object of each department of the service would be the collection and summarizing of observations taken in different parts of the Empire, and the providing of

> a scientific staff for dealing with the more general meteorological problems, including their relation to Solar Physics and Terrestrial Magnetism, which involve the co-ordination of data from wide areas, and to promote experimental investigations of the scientific questions which arise in connection with such discoveries.

A truly epoch-making resolution !

Several papers of meteorological interest were read, but were scattered through different sections, which interfered with their discussion by those most directly concerned. A Meteorological Breakfast, which has become a feature of the British Association meetings in England of late years, was held at Cape Town on August 18th. At Johannesburg further sectional meetings were held, and more papers were read. The new observatory of the Transvaal Meteorological Service was thrown open by the Director, Mr. R. T. A. Inness, who showed the admirable equipment of self-registering and other instruments. The journey into the interior afforded opportunity for further study of local meteorology and climate. The full effects of the dry season were noted in the bare, dry veld, "covered with burnt-up grass and low shrubs, but only wanting irrigation to become extremely fertile." Fine displays of sheet lightning were seen on the high veld, but there was no thunder or rain. In the intensely dry weather the hair crackled with electricity when being brushed.

At Kimberley the observatory of Mr. J. R. Sutton was visited. This observatory was partly equipped by the De Beers Company, but all the observations are taken by Mr. and Mrs. Sutton. Mr. Sutton's work at Kimberley has already received notice in this BULLETIN. Going north from Kimberley, the grass on the dry veld gradually gave place to low, thorny shrubs and next to thin forest, the green leaves breaking out afresh in advance of the rains. It being the end of the dry season, the water in the Zambesi was at its lowest, and therefore the scenery of the rock gorges at the Victoria Falls could be well seen. At Buluwayo, on September 14th, the shade temperature was 85° and the wet-bulb 55°, showing a relative humidity, according to the tables, of only 9%! As Professor C. V. Boys said in a lecture at Cape Town, in the interior of South Africa water evaporates as rapidly as does alcohol in damper climates. R. DEC. W.

AFRICAN CLIMATOLOGY.—Meteorological observations from portions of Africa but recently redeemed from savagery are accumulating rapidly. Among the publications which deal with African climatology the *Deutsche Ueberseeische Meteorologische Beobachtungen* are of great value. These volumes are issued by the German Naval Observatory (Deutsche Seewarte) at Hamburg, with the co-operation of the Colonial Division of the Foreign Office. Volume XIII, a quarto of 317 pages, is a continuation of Vols. X and XI, and deals with observations from German East Africa. The hourly readings of barographs, thermographs, anemographs, hygrographs, and sunshine recorders are given for stations where these instruments are in operation. There are also complete eye observations of the ordinary elements, made three times daily at 22 stations. Details regarding the location and exposure of the different stations, as well as the corrections for the local readings, are given in each case. The hours of observation differ; in most places they are 7 A.M., 2 P.M, and 9 P.M., but in individual cases they are 8 A.M., 10 A.M., and 4 P.M. (TANGA); 7 A.M., 2 P.M., and 8 P.M. (KWAI); 6 A.M., 1 P.M., and 6 P.M. (NEU-KÖLN), and various (KILOSSA). This is an extremely valuable collection of data when the locality in question and the completeness of the observations are considered. R. DEC. W.

AMERICA.

COAL RESOURCES OF WYOMING.—The School of Mines of the University of Wyoming publishes as *Bulletin* 7 a report on the coal resources of the State by Professor L. W. Trumbull. In 1869, 58,186 tons were mined; while the production in 1905 is estimated at 5,500,000 tons. The various estimates of the area of the Wyoming coal measures at from 20,000 to 40,000 square miles are probably under the truth, though undoubtedly much of the coal is so deeply covered that it will not be dug for many ages. All the coal is found in rocks of the Cretaceous, this formation being to Wyoming what the Carboniferous is to Pennsylvania. The report contains a sketch map showing the wide distribution of the Cretaceous, and also of Cretaceous covered by Tertiary.

THE ILLINOIS STATE GEOLOGICAL SURVEY.—The Illinois State Geological Commission was organized last August by the appointment of Prof. T. C. Chamberlin, of Chicago University, to serve with the *ex-officio* members, Governor C. S. Deneen and President Edmund J. James of the State University. Dr. H. Foster Bain was appointed Director of the State Survey in September, and took up his work in November last. The Board had already arranged for topographic work in the season of 1905, and the results have been announced in the *Bulletin.* The work planned for 1906 includes the completion of the survey of the Wheaton and Aveston quadrangles, which were partly surveyed in 1905, with the survey of the Galena, Waukegan, and Farmington quadrangles. In addition, a line of precise levels is to be carried from Chicago to Odin, one-half the work being done in 1906 and one-half the following season. In a line of precise levels, run last year, 84 miles long, the actual error was found to be less than a quarter of an inch; and in certain primary traverse lines, 60 miles long, run around one of the quadrangles, the circuit came within 20 feet of longitude and ten feet of latitude closing. The work is being done with unusual care, level lines being run along all of the roads, up many of the streams, and well out into the sections between the roads. In 1905, 365 geodetic stations were occupied, and more than 3,500 miles of spirit-levels run. It is believed that the maps, when completed, will be quite as good as any that have yet been made. It is found that in Illinois, owing to the general flatness of the country and the large number of straight roads, it is possible to make accurate surveys with unusual economy.

The geologic work proper is now being organized. In general it will be mainly directed to a study of the coal and clay resources of the State. The work on the latter has already been begun. Mr. Ross C. Purdy, late of the Ohio State University, and now Instructor in Ceramics at the State University of Illinois, under the direction of Professor C. W. Rolfe, is making a complete study of the paving-brick industry and the paving-brick clays of the State. This is to be followed by a study of the pottery industry. Mr. Purdy took up field work in November, and material is being collected for a careful series of laboratory investigations running through the winter months.

PINE SEEDS DISTRIBUTED BY PREVAILING WINDS.—In a recent report on the *Loblolly Pine in Eastern Texas* (U. S. Department of Agriculture, Forest Service, Bulletin No. 64, 1905), by Raphael Zon, reference is made to the distribution of the seeds of this pine by the winds. On the wet prairie of Eastern Texas islands of these trees are very characteristic, occurring on slightly-elevated mounds. In the early stages of development these islands are often almost circular, with the older trees in the centre and the younger ones towards the margins. Loblolly pine seeds ripen at the end of September and early in October. At this season dry northwesterly winds prevail. These winds hasten the opening of the cones and carry the seeds towards the southeast. R. DEC. W.

THE NEW JERSEY GEOLOGICAL SURVEY.—This Survey is revising and issuing new editions of its topographical atlas on a scale of one inch to a mile. Last year four new sheets replaced an equal number of older sheets now out of print. It is also preparing and publishing from time to time topographical sheets on a scale of 2,000 feet to an inch. In 1905 three sheets were issued and surveys were completed for three more. There will soon be twenty-four sheets on this scale.

Studies were made of the Upper Passaic Valley in elaboration of the proposed plans for controlling floods upon that river by a dam at Little Falls and for the establishment of a permanent lake and reservoir. Investigations were also made of the wasting of the beaches and the shifting of bars and channels at the inlets and the best methods of controlling these movements.

The peat, sand, limestone, and building stones of New Jersey were the subject last year of special investigation, both in the field and laboratory, and reports are being prepared upon the peat and limestones. The sands and building stones are still under investigation.

Studies are in progress regarding the trap rock and associated copper deposits, with a view of determining the source of the copper and its mode of accumulation.

Paleontological studies have been pursued on the fauna and flora of the Cretaceous formations, and reports are being prepared for publication.

GLACIAL PHENOMENA ALONG THE NORTH SHORE OF LAKES HURON AND MICHIGAN.—The last Annual Report of the Michigan Geological Survey (Report for 1904) contains a paper by Prof. I. C. Russell, in which the glacial phenomena of a part of northern Michigan are described and discussed (pp. 57–94). There is a consideration of the evidences of ice erosion, including a discussion of certain interesting features relating to striæ and the bearing of these on the subject of ice erosion on a large scale in this region. Regarding Lakes Huron and Michigan, Russell is of the opinion that the glaciers did more toward filling pre existing basins than of deepening them. His paper discusses various drift forms and the shore-lines and clays of the ancient ice-dammed lakes. Perhaps the most notable section of the paper is that on drumlins, of which there are two areas in the region covered by his work—one the Les Cheneaux area, the other the Menominee area, in approximately the same latitude, but 125 to 150 miles apart. In addition to a description of the characteristics of the drumlins of these areas, in which they form the dominant topographic forms, Russell discusses their origin, and concludes that the drumlins of the Menominee region have resulted from the erosion of a previously-deposited till sheet. This is a revival of Prof. Shaler's theory, which a majority of glacial geologists have discarded in favour of the theory of formation by sub-glacial deposit. R. S. T.

GLACIAL STUDIES IN THE CANADIAN ROCKIES AND SELKIRKS.—A paper under this title by Dr. W. H. Sherzer (Smithsonian Miscellaneous Collection, Vol. II, Part 4, pp. 453–496) describes in detail the phenomena illustrated by a number of the glaciers of Alberta and British Columbia. The physical features of the ice, the banding of the ice, the moraines, the rate of ice motion, and the frontal changes are all discussed upon the basis of observations upon several glaciers. One of the most noteworthy points brought out by this paper is the clear evidence of a shearing along planes between adjacent ice strata. This paper, which is illustrated by a large number of excellent half-tones, is an important contribution to glacial geology, both from the standpoint of its local details and of its discussion of general principles of ice characteristics and behaviour. R. S. T.

MODELS OF MARTINIQUE AND MT. PELÉ.—The American Museum of Natural History in this city is now exhibiting a series of models illustrating the island of Martinique and the effects of the eruptions of Mont Pelé. There are four models, one of which is the whole island upon a scale of 1:80,000, modelled from the French Admiralty Chart, and three enlarged models of the volcano itself upon a scale of 1:24,000, or 2,000 feet to an inch. In all the models the vertical scale is the same as the horizontal. The first of the large-scale models shows the volcano as it was at the first great eruption on May 8, 1902, when the city of St. Pierre was destroyed. The second shows the changes in the volcano in the succeeding months, including the destruction wrought by the eruption of Aug. 30, 1902; and the third shows the wonderful spine and cone of lava pushed out of the conduit and crater during the winter and spring of 1902–3, the time selected being the period of maximum development.

RAILROADS IN GUATEMALA.—Mr. Charles M. Pepper, in his monograph on "Guatemala" (Washington, 1906), says that the Northern Railroad will be open for traffic by the end of 1906. The line extends from Guatemala City to El Rancho and thence to Puerto Barrios. This will place the capital and the whole interior of the country in direct communication with Puerto Barrios and insure a large reduction in the cost of freight. It will also open up a very rich region which now has only the most primitive means of communication. On the Pacific slope the leading railroad system is the Guatemala Central. Its main line and branches cover the coffee-raising districts of the Pacific Coast. In addition to its railroads, Guatemala has recently built, or is now constructing, a system of nine highways or cart roads extending through various parts of the country.

AUSTRALASIA.

GLACIAL EROSION IN NEW ZEALAND.—Recent literature has furnished descriptions of conditions in Alaska, Norway, Switzerland, and other regions which point strongly to the conclusion that glacial erosion has profoundly modified the valleys of these regions, and given rise to some of their characteristic topographic features. Southwestern New Zealand resembles Norway and Alaska in mountain form, fjorded coast, and former great extension of glaciers; and it is interesting, therefore, to note that the topographic features which have caused the belief in marked erosion in Norway and Alaska are found in great perfection also in New Zealand. A recent paper by E. C. Andrews (Trans. Australasian Assoc. Adv. Sci., Jan., 1904, pp. 189–205) describes and interprets these features and illustrates them with a series of excellent half-tones.

Going to New Zealand from eastern Australia, Mr. Andrews was impressed by the absolute difference in the topography of the two regions, although both were in approximately the same stage of topographic development. In eastern Australia the tributary valleys enter the main streams at grade, and the valleys possess a series of overlapping spurs; but in southwestern New Zealand the tributary valleys join the main valleys at discordant levels, in some cases 2,000 feet above the valley bottom, and the valley wall spurs are truncated—in some cases entirely removed, in others partly destroyed. These two results, and some other features of the region, Andrews assigns to glacial erosion, agreeing with the interpretations of Gannett, Davis, Gilbert, Penck, and others for European and American regions. Andrews' paper is an important contribution to the subject of glacial erosion, adding one more glaciated district which possesses topographic features that so far have not been recognized in perfection in non-glaciated regions. R. S. T.

DROUGHT OF 1901–1902 IN NEW SOUTH WALES.—*The Results of Rain, River, and Evaporation Observations made in New South Wales during 1901–1902*, under the direction of H. C. Russell, Government Astronomer, recently received (date of publication 1904), give some startling facts regarding the drought of these years. Although now somewhat out of date, this volume gives the first authentic information, coming through the official meteorological channels of the New South Wales Government, which has been sent us as to the conditions of this unprecedented drought. Taking the rainfall of 1902 for the whole State, the amount is the smallest on record except that for 1888. The year 1902 had an average of 14.09 inches, while 1888 had 13.40 inches; but 1888 was preceded by a series of years of plentiful rainfall, and 1902 was the eighth consecutive year of drought. The results were most disastrous, especially in the western country. Here sand and dust storms, due to persistent dry winds, were a dominant feature. Drifting sands were carried over the plains until stopped by fences, where they were banked up and formed dunes. Stock-yards, wool-sheds, gardens and fences were buried; dams were filled up, and their embankments destroyed.

During the seven years ending with 1901 the number of sheep grazing in the Western Division fell from 16,000,000 to about 5,000,000, the total loss being fixed at at least 30,000,000 pounds sterling. The effect of the drought was shown in a peculiar way—in the decrease in the number of voluntary meteorological observers. There had previously been a steady increase up to 1719 in 1901, but the number fell to 1650 in 1902 as the result of the temporary abandonment of their homesteads by the farmers. Much the same thing, it may be noted, happened in South Africa during the recent drought there. R. DeC. W.

EUROPE.

THE BASIN OF THE MOSELLE.—No. VII of "Ergebnisse der Untersuchung der Hochwasserverhältnisse im Deutschen Rheingebiet" is devoted to the basin of the Moselle, including those parts of it outside the German territory. The Moselle is the most important tributary of the Rhine on the left, and this official report, prepared in the Meteorological and Hydrographical Bureau of Baden, and published by Wilhelm Ernst & Son, Berlin, is practically exhaustive and a fine example of the thoroug discussion of the various physical aspects of a river. The quarto volume is richly equipped with superior maps in colours, among which are sheets showing the topography and geology of the basin, its forestation, and the distribution of its rainfall.

THE FOREST-LINE IN THE AUSTRIAN ALPS.—Professor R. Marek has a preliminary report in the *Mittheilungen* of the Vienna Geographical Society on his studies of the altitude of the forest-line in the Austrian Alps. He finds that this line sinks continuously from west to east, the rate of fall increasing towards the east, and a difference of 556 meters being recorded in an area that extends through about five degrees of longitude. The average height of the forest-line is about 750 meters below that of the snow-line.

BALLOON VOYAGE ACROSS THE ENGLISH CHANNEL.—Messrs. C. F. Pollock and Martin Dale, members of the Aero Club, made a successful balloon voyage from England to France on Feb. 3. They passed out to sea at Eastbourne at 2 P. M., and, after a speedy crossing of the Channel, descended between Havre and Dieppe in three hours twenty minutes after the start. The distance travelled was 140 miles. The balloon was inflated with 50,000 cubic feet of gas.

POLAR.

BARON VON RICHTHOFEN'S LAST WORK.—The house of Dietrich Reimer, Berlin, has just printed, at the special request of Emperor William, the incomplete report of the "Ergebnisse und Ziele der Südpolarforschung," which von Richthofen had begun to prepare for the Emperor shortly before death ended his labours. The famous geographer gives a survey of the problems to be solved by the South Polar expeditions, and describes particularly the services of the German expedition under von Drygalski, a pupil of von Richthofen, in the investigation of the fauna and flora of the regions explored. This is the extent to which von Richthofen had completed the work.

BAFFIN ISLAND NOT TO BE RE-EXPLORED AT PRESENT.—Concerning the recent report that Canada proposed to re-explore Baffin Island and its great inland lakes, Mr. James White, Geographer for the Department of the Interior, writes that the Government does not at present intend to undertake this work. It is, in fact, doubtful that the work will be undertaken in the near future, in view of the enormous extent of the Canadian territory, more accessible and of much greater importance, that still remains to be studied in detail.

THE SCIENTIFIC STATION ON DISCO ISLAND.—We have received a letter from Dr. Morten P. Porsild announcing that the proposed permanent station for the study of Arctic science on Disco Island, in Danish West Greenland, will be established under his direction this summer. The cost of founding the station has been met by Mr. A. Holck of Copenhagen, and the Danish Government has granted the sum of $3,000 annually for its maintenance. The station will be especially equipped for biological researches, and conveniences for work will be supplied for visiting naturalists, both foreign and Danish. Visitors can first be received in 1907, and notices inviting applications wlll be sent out in due time. It is expected to establish at least two out-stations where investigations may be carried on as well as at the central laboratory. Visitors will have free use of the instruments, travelling outfit, and library; lodging will be free, and a small charge will be made only for board. Dr. Porsild will be glad to receive gifts of publications relating to the Arctic regions, and especially to Arctic biology. It is desired to make the library as complete as possible; but as the resources of the station are limited, only a small part of the books can be purchased.

VARIOUS.

A Periodical Devoted to Earthquakes.—The Magazine *Die Erdbebenwarte*, edited by Professor A. Belar and published at Laibach, is now in its fifth year. Among the contents of the latest issue (Vol. V, Nos. 1–4) are articles on the Seismic Observatory in Munich; Earthquakes in Servia in 1904 (125 distinguishable without the seismograph, and many earth tremors); Premonitions of a volcanic eruption by means of a seismograph (the outbreak on Savaii as indicated at the Samoa Observatory, Apia); Vicentini's new seismograph; monthly earthquake reports, book reviews, notes and news, etc. It is a publication of great value to the student of earthquake phenomena.

Vesuvius in Eruption.—Mount Vesuvius was very active early in February. The lava reached three places on the Vesuvian railroad line, covering about 100 yards of it at each point.

Distribution of Earthquakes.—The relations of the structure of the earth's crusts to earthquakes are discussed in the January number of the *Annales de Géographie*. "Observations of more than 170,000 earthquakes show that they occur almost equally and exclusively along two narrow zones lying on two great circles of the terrestrial sphere; the Mediterranean or Alpine–Caucasian–Himalayan circle, with 53 per cent. of recorded earthquakes, and the circum-Pacific or Andeo–Japanese–Malaysian circle, with 41 per cent." These observations, it is asserted, give no support to the theory that the tetrahedral distortion of the earth's crust is due to this cause.

The Kangra Earthquake.—Thirty-six pages of the *Records* of the Geological Survey of India (Vol. XXXII, Part 4, 1905) are given to a preliminary account of the Kangra earthquake of April 4 last year. The report is written by C. S. Middlemiss, one of the three superintendents of the Geological Survey. The starting-point of the earthquake was the Kangra district of the Northwestern Himalayas. About 20,000 persons are estimated to have perished, the loss of life being greatly increased by the fact that the most violent phases of the shocks occurred early in the morning, when many were still asleep. The earthquake was appreciable to the senses over an area of about 1,625,000 square miles, or a territory more than half as large as the United States. The shocks were brief and of powerful intensity. At Dharmsala it was impossible for a person to keep his feet while standing or walking. It has not been possible to decide as to the depth of the centrum, where the disturbance originated. The rate of movement of the earth-waves appears to have been 1.9 miles per second, or considerably less than the rate in the Charleston earthquake, which was about 17,000 feet per second. The conditions among the mountains were ideal for the production of land-slides on a gigantic scale. Two maps show the outer boundary of the shaken area, the four highest isoseismals and the approximate positions of the axial epicentrums.

THE INTERNATIONAL GEOLOGICAL CONGRESS IN MEXICO.—The General Secretary of this Congress has distributed the programme of the excursions to be held in connection with the meeting of the Congress in the City of Mexico during next September. Four excursions are provided before the opening of the Congress. The first, lasting four days and confined to 250 persons, is to be to the east from Mexico City through Jalapa to Vera Cruz, returning to Mexico through Esperanza; the second, to the south, will be eight days and limited to forty persons, the party going to Esperanza, Tehuacan, and Oaxaca; the third, limited to thirty members, will include visits to the volcanoes of Toluca, San Andres, and Jorullo, and will last fourteen days, nine of which will be on horseback; the fourth is to be to the geyser district of Ixtlan and to the volcano Colima. During the meeting of the Congress short journeys will be made to various places near the capital, and at the close of the sessions an excursion to the north of twenty days and another to the Isthmus of Tehuantepec will take place.

COST OF MOUNTAIN-CLIMBING.—In Switzerland a tariff is established by the Government, which declares what the fee shall be for the climbing of any of the principal peaks. The fee is regulated by the time consumed and the difficulties presented in making a given ascent. The Matterhorn will cost the climber 200 marks ($40); Mont Blanc probably as much; the Eiger and Mönch in the neighbourhood of 125 marks ($25), and so on down to 10 francs, which is the smallest amount charged for any peak. Under the Swiss tariff a mountain such as Rainier would probably cost the climber about $30 for the ascent.—*Mazama*, December, 1905. Page 218.*

A CONTRIBUTION TO KNOWLEDGE OF THE PACIFIC.—The Smithsonian Institution has just printed (*Bulletin* No. 55 of the U. S. National Museum) a compilation of data collected by the U. S. S. *Nero* while engaged in the survey of the route for our trans-Pacific cable in 1899. The number of soundings was 2,074, or an average of one for every 10 miles of distance run. The survey followed lines as direct as practicable from Honolulu to Midway Island, thence to Guam and Luzon, and also from Guam to Japan.

The *Bulletin* contains an abstract of the official record of soundings showing the position, depth, surface and bottom temperatures, character of the bottom, and deposits; also a record of the detailed examination of selected specimens of deposits from stations on the outward voyage of the *Nero*. A belt of ocean about 14 miles wide and over 6,000 miles long was examined, and the parts of the ocean covered by this very thorough survey are shown by a diagram. It was during this work that the deepest sounding ever recorded was found about 75 miles east-southeast of Guam. This sounding is in 12° 43′ 15″ N. Lat. and 145° 49′ E. Long., and is only 66 feet less than 6 statute miles.

COMMERCIAL RESEARCH IN THE TROPICS.—The Liverpool Institute of Commercial Research in the Tropics has sent its first expedition to West Africa. The five members of the party will visit Dakar, Bathurst, Konakri, and, if possible, the Cameroons. As the expedition is experimental, the visit will be a short one; but if the results are satisfactory, a second expedition will probably go out to spend a long period in Africa. The present party will inquire especially into the cultivation of rubber—how to improve the quality of West African rubber, and how to protect and increase the present supply. An effort will also be made to find new sources of oils and means of increasing the supply by utilizing the present waste. Investigations will also be made regarding the establishment of hemp, cotton, jute, and ramie growing, and also of new fibres.

---

* It is a small matter, but four marks are equal to a dollar, and the mark is not Swiss.

KOLONIAL-HANDELS-ADRESSBUCH, 1906.—The latest edition of this invaluable work of reference for all who are interested in the German colonies contains statistics and information concerning their present stage of development, including lists of the colonial companies, traders, farmers, missionary posts, colonial governments, communications, and trade. The work includes maps of each of the colonies. It is published by the Kolonial-Wirtschaftliches Komitee, Berlin.

PERSONAL NOTES.—From May last until the end of the year, Dr. G. K. Gilbert was in the Sacramento Valley, California, studying the regimen of the Sacramento and its branches with regard to the transportation of débris. This work is connected with the investigation of hydraulic mining in the Sierra Nevada in its relation to agriculture in the Sacramento Valley.

Dr. C. Kenneth Leith, Professor of Geology in the University of Wisconsin, is working, in collaboration with President C. R. Van Hise, on a monograph of the entire Lake Superior region—a work that will be a co-ordination and summary of two generations of geological exploration and study in a region of remarkable interest. The work will soon be published as a Geological Survey Monograph.

U. S. BOARD ON GEOGRAPHIC NAMES—Decisions March 7, 1906:

ALAMOGORDO: election precinct and town, Guadalupe county, N. Mex. (Not Alamo Gordo.)

BANCROFT: mountain, on the county line between Clear Creek and Grand counties (southern part of S. 29, T. 23, R. 74 W.), Colo. (Not Lomand's, Millar's, nor Perry Peak.)

BATTIE: mountain, Camden town, Knox county, Maine. (Not Beattie nor Beatty.)

BOULDER: creek, Matanuska valley, 40 miles northeast of Knik arm of Cook inlet, Alaska. (Not Schoonhoven nor Schoonoven.)

*BREWSTER: precinct and town, Okanogan county, Washington. (Not Bruster.)

CHICKAWAUKIE: pond, Rockland and Rockport towns, Knox county, Maine. (Not Cichicwaukie nor Chickawaka.)

DEATH VALLEY: valley, Inyo county, California. (Not Amargosa Desert nor Lost Valley.)

ELBOW: lake, 4 miles east of mouth of Thunder Bay river, Alpena county, Michigan. (Not Carp nor Crooked.)

*HANKOW: capital, province of Hupeh, China. (Not Hankau.)

KINGS: mountain on the east bank of Matanuska river, 40 miles northeast of Knik arm of Cook inlet, Alaska. (Not House.)

LILLY: pond, Rockport town, Knox county, Maine. (Not Fresh nor Lily.)

LITTLE NESENKEAG: brook, tributary from the east to Merrimack river, Hillsboro county, N. H. (Not Chase's, Chases, Massenteean, Mossenteean, nor Reed's.)

---

* Reversal of former decision.

MONROE: island, southeast of Rockland, Knox county, Maine. (Not Munroe.)

NESENKEAG: brook, tributary from the east to Merrimack river, Hillsboro county, N. H. (Not Brickyard, Chase, nor Great Nesenkeag.)

*NEWCHWANG: treaty port, province of Liaotung, China. (Not New-Chwang, Niu-chuang, Niu-Chwang, Niuchwang, nor Niutschuan.)

SANGERFIELD RIVER: branch of Chenango river, Chenango, Madison, and Oneida counties, N. Y. (Not Chenango Creek, East Branch Chenango river, nor East Chenango river.)

SHANDON: railroad station and village, Butler county, Ohio. (Not Glendower, New London, nor Paddy's Run.)

SOOCHOW: city, China. (Not Soo-Chow-Foo, Soo-Tchoo, Sou-Tcheou-Fou, Su-chau, Su-Chew, Su-chow, nor Su-Chow.)

TALKEETNA: mountains and river, north of Cook inlet, on the east side of Sushitna river, Alaska. (Not Talkeet, Talkeetno, nor Talkütna.)

TEE: cove or harbor, Lynn canal, southeastern Alaska. (Not Stephens.)

TULULA: creek, tributary to head of Cheoah river, and town, Graham county, N. C. (Not Tallulah.)

WALHALLA: plateau, Coconino county, Arizona. (Not Greenland nor Valhalla.)

WINOOSKI: river, tributary from the east to Lake Champlain, Chittenden and Washington counties, Vermont. (Not Onion.)

AMERICAN GEOGRAPHICAL SOCIETY.—TRANSACTIONS, FEBRUARY, 1906.—A Regular Meeting of the Society was held at Mendelssohn Hall, No. 119 West Fortieth Street, on Tuesday, February 20, 1906, at 8.30 o'clock P.M.

Vice-President Moore in the chair.

The following persons, recommended by the Council, were elected Fellows:

Courtlandt Nicoll.
Henry DuBois Bailey Moore.
William McDonald.
Thomas A. McIntyre.
Harry Alvan Hall.
William Maxwell.
James M. Lawton.
Howland Pell-Haggerty.
Edwin Stanton Mullins.
R. Stuyvesant Pierrepont.
James H. Penniman.
George Marvin.
Gouverneur Morris Phelps.
I. N. Poe.
Arthur Sachs.
Henry V. Poor.
Allen Merrill Rogers.
Abbott S. Rogers.
Emmet Queen.
Spencer Eddy.
John K. Robinson.

The Chairman then introduced Professor William Morris Davis, who addressed the Society on Experiences with the British Association in South Africa.

Stereopticon views were shown.

On motion, the Society adjourned.

---

* Reversal of former decisions.